

Claims:

- 1 1. A system comprising:
2 a radio modem unit; and
3 an RF signal booster unit, wherein the booster unit is connectable to
4 the RF signal booster unit with a connector adapted to transmit RF signals,
5 wherein a DC offset at the connector is detected to determine whether the booster
6 unit is connected to radio modem.
- 1 2. The system of Claim 1, wherein the connector connects to a
2 connection line between the radio modem unit and the booster unit.
- 1 3. The system of Claim 1, wherein the offset detection circuitry is
2 located within the radio modem unit.
- 1 4. The system of Claim 1, wherein the offset detection circuitry
2 includes an inductor to allow the DC offset to be placed onto the connector, but
3 not allow radio frequency energy to pass up into the auto-detect circuit.
- 1 5. The system of Claim 1, wherein the booster unit includes an
2 element to reduce the DC power level to low if the radio modem unit is connected
3 to the booster unit.
- 1 6. The system of Claim 5, wherein the elements in the booster unit
2 include an inductor.
- 1 7. The system of Claim 1, wherein the voltage at the connector of the
2 radio modem unit is high if no booster unit is connected but is low if a booster unit
3 is connected.
- 1 8. A radio modem unit comprising:

2 a radio;
3 an RF signal connector operably connected to the radio, the connector
4 being connectable to a RF antenna or a booster unit; and
5 a detector unit adapted to detect a DC offset at the connector to
6 determine whether the connector is connected to a booster unit.

1 9. The radio modem unit of Claim 8, wherein the connector is
2 connectable to a connector line which can connect the radio modem unit to a
3 booster unit.

1 10. The radio modem unit of Claim 8, wherein the DC offset of
2 the connector is high if no booster unit is connected but is low if a booster unit is
3 connected.

1 11. The radio modem unit of Claim 8, wherein an inductor is
2 used as part of an auto-detect circuit.

1 12. The radio modem unit of Claim 8, wherein the radio modem
2 unit is connected to a booster unit, the booster unit including a circuit to pull the
3 DC offset at the connector to low.

1 13. A system comprising:
2 a radio modem unit; and
3 an RF signal booster unit, wherein the booster unit is connectable to
4 the RF signal booster unit with a connector adapted to transmit RF signals,
5 wherein baseband signals transmitted to the connector by the radio modem are
6 used by the booster unit to prepare for transmission.

1 14. The system of Claim 13, wherein a connector line is
2 connected between the connector at the RF signal booster unit to a connector at the
3 radio modem unit.

1 15. The system of Claim 13, wherein the baseband signals are
2 power control signals.

1 16. The system of Claim 13, wherein the power control signals
2 are used to control the power and channel.

1 17. The system of Claim 13, wherein the RF signal booster unit
2 includes a switch in the transmit line that prevents RF energy from being provided
3 to a power amplifier in the booster unit until a valid power controller message is
4 received from the radio modem.

1 18. The system of Claim 13, wherein DC offset signals are sent
2 between the radio modem and booster unit to indicate whether the radio modem
3 unit is connected to the booster unit.

1 19. An RF signal booster unit adapted to amplify RF signals
2 from a radio modem, the booster unit includes a switch that significantly attenuates
3 the RF energy from the radio modem that is provided to a power amplifier in the

4 booster unit until a valid power control message is received from the radio
5 modem.

1 20. The RF signal booster unit of Claim 19, wherein the switch
2 includes a pair of diodes.

1 21. The system of Claim 20, wherein the current flows through
2 the diodes, the RF impedance of the diodes is reduced, turning the switch to
3 closed, but when current is not flowing through the diodes, the RF impedance of
4 the switch is high.

1 22. Method of using a radio modem unit and an RF signal
2 booster unit, the booster unit and radio modem unit connectable using a connector,
3 the method comprising:

4 in the radio modem unit, detecting a DC offset on the connector to
5 determine whether the booster unit is connected;

6 if the booster unit is connected, transmitting baseband signals on the
7 connector from the radio modem to the booster unit to allow the booster unit to
8 prepare for transmission; and

9 thereafter, transmitting an RF signal on the connector from the radio
10 modem to the booster unit.

1 23. The method of Claim 22, wherein the connector line
2 connects between the radio modem unit and an RF signal booster unit.

1 24. The method of Claim 22, wherein the baseband signal is the
2 power control signal.

1 25. The method of Claim 24, wherein the power control signal
2 includes a channel control and power level indications.

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